

Lightweight 155mm Howitzer

21st Century Light Forces Fire Support



Presented by:
LTC Tim Prendergast
JPM-LW155

Presented to:
1998 Combat Vehicles Conference
NDIA

Jointness



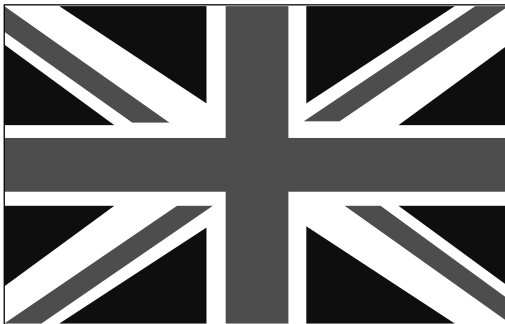
The Marines and Army Have a Fully-Coordinated Effort in Place for Joint Development of LW155

- Assistant Secretary of the Navy (Research, Development and Acquisition) is the Milestone Decision Authority (MDA)
- Commander, Marine Corps Sys Command Directs Program
- PEO-GCSS (Army Executive Agent) Executes Program
- Program Office is JOINT
 - » Marine PM Manages All LW155 Programs
 - » Howitzer Development - USMC Funds & Directs
 - » P3I DFCS Development - USA Funds & Directs
- JOINT Documents:
 - » MNS, JORD, COEA, ILSP, APBA, and TEMP

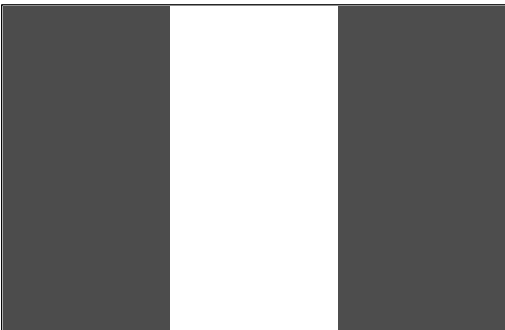


The Future of Towed Cannon Artillery

International Involvement



- **Bilateral EMD MOU - Sept 98**
- **Funding to US - Oct 98**
- **Supplementary Testing Planned**
- **Integrate UK into the Team - Engineer Already in Place**
- **UK LIMAWS Study - LW155 the System of Choice**

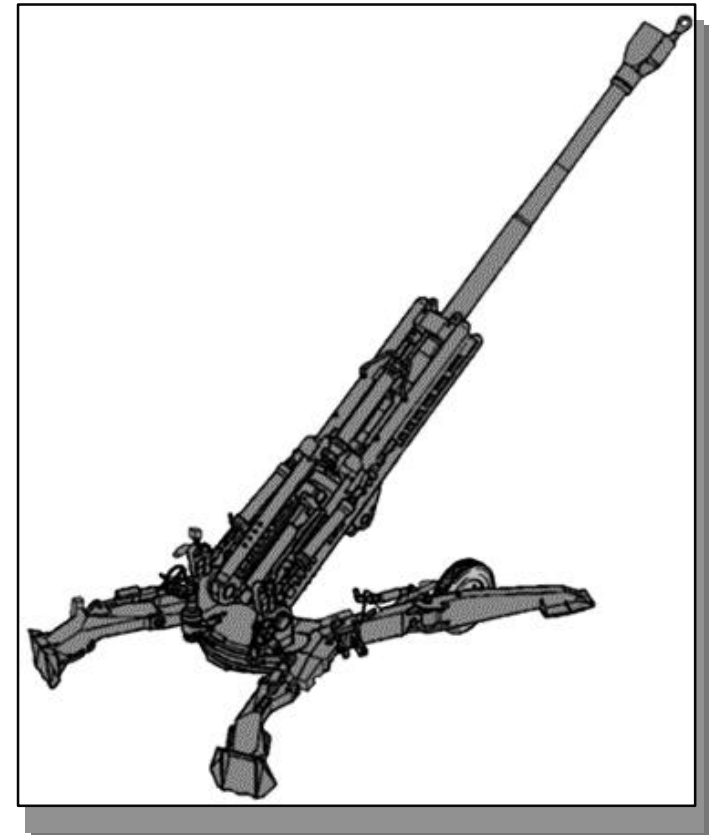


- **Trilateral EMD MOU Negotiations Underway**
- **Funding to US Planned**
- **Major Support in Auto-Rammer Development**
- **Integrate Italy into the Team**

LW155 Joint Operational Requirements Document



- 9000 Lbs or Less - Deployable and Mobile
- Emplace in 2-3 Min, Displace in 1-2 Min
- External Lift by MV-22, CH53D/E, CH47
- All USAF (2 per C130, LW155 & Truck in C141)
- Rate of Fire 5-8 RPM, Sustained 2 RPM
- Max Range 30-40km with Rocket Assist
- Bold Shift in 2-3 Min
- Semi-Auto Breech & Primer Feed Mechanism
- 800 to 900 Rds Between Systems Abort
- P3I: Digital Fire Control System (DFCS)
 - » Digital Indirect Fire Control
 - » Inertial Navigation with GPS Backup
 - » 1st Round Hit Direct Fire Sight
 - » Powered Rammer
 - » Powered Elevation & Deflection Drives
 - » P3I DFCS Weight: 500 Lbs Max

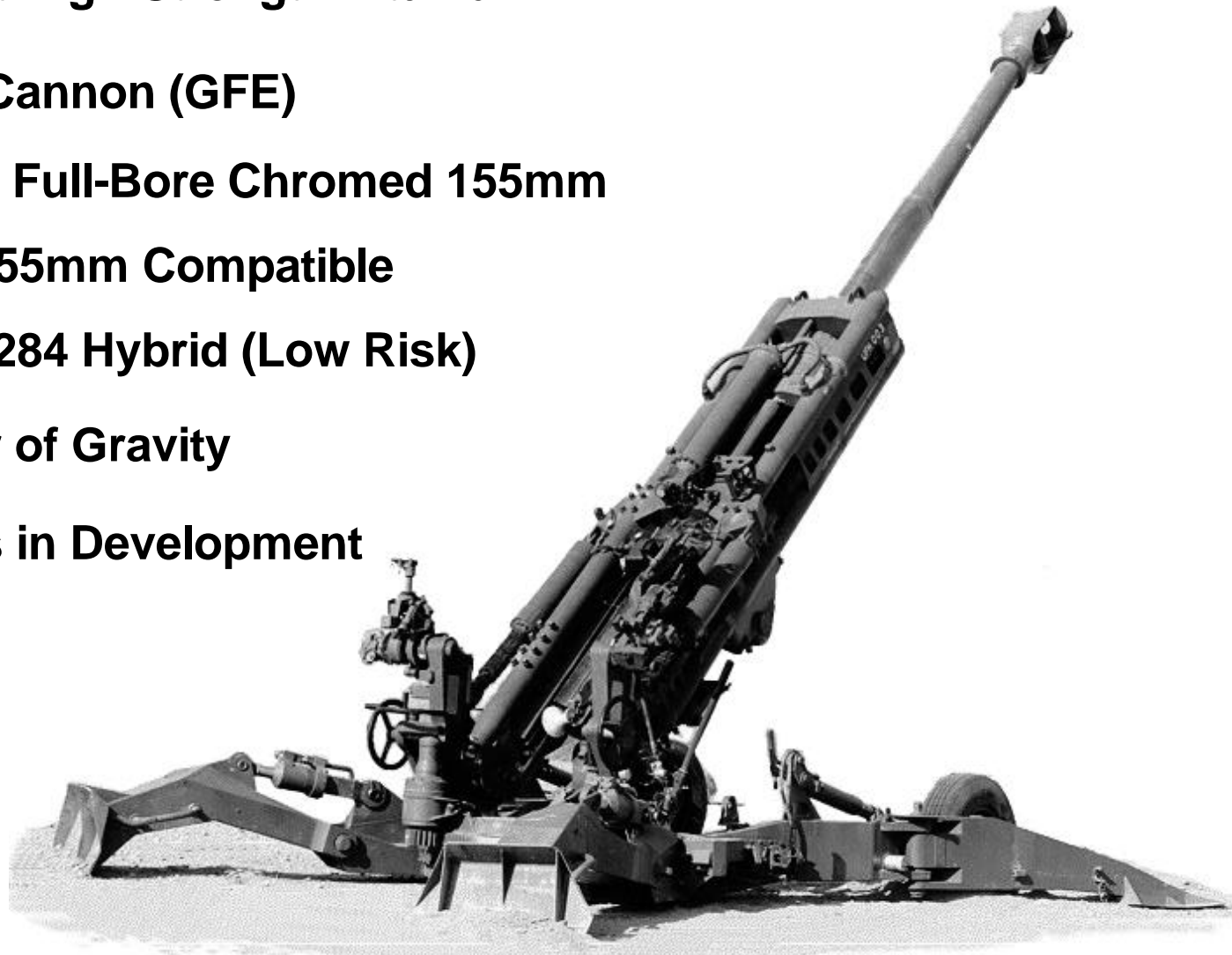


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LW155 Design



- **Lightweight High-Strength Titanium**
- **Watervliet Cannon (GFE)**
 - » **First US Full-Bore Chromed 155mm**
 - » **NATO 155mm Compatible**
 - » **M199/M284 Hybrid (Low Risk)**
- **Low Center of Gravity**
- **Eight Years in Development**



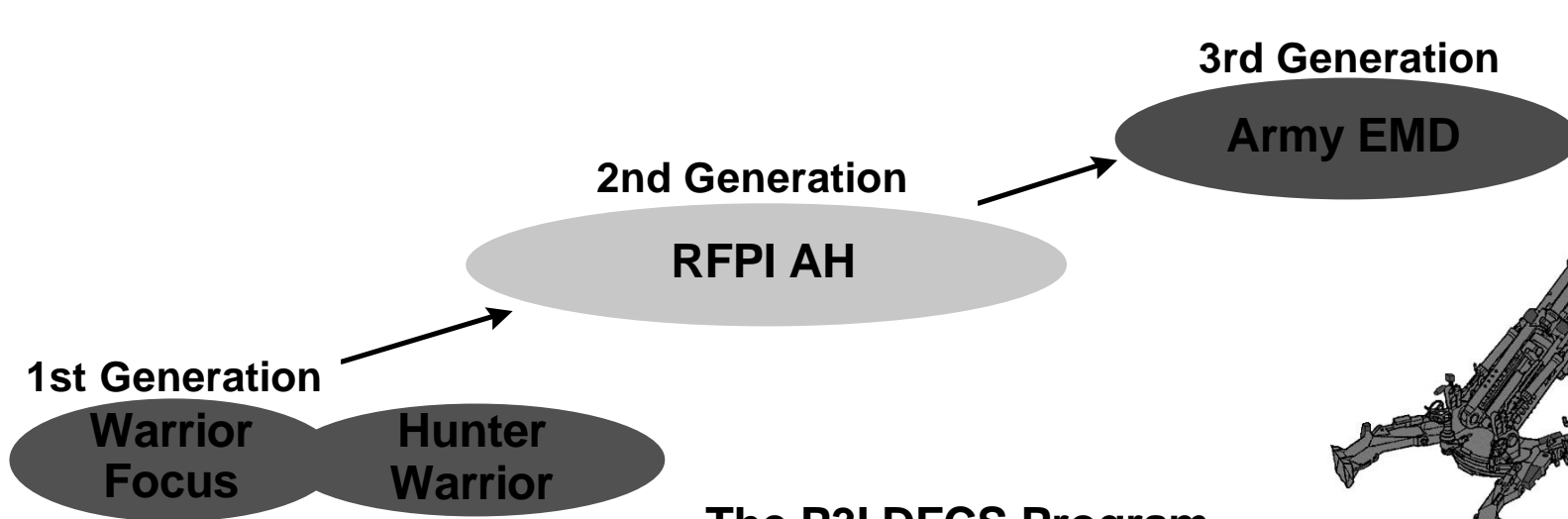
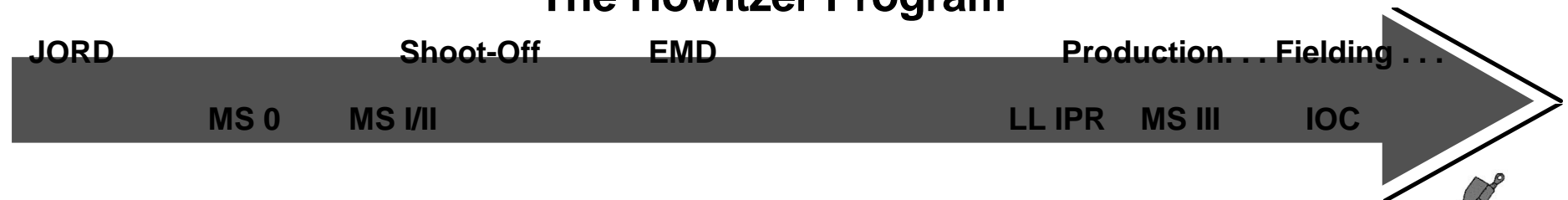
The Future of Towed Cannon Artillery

Fully Coordinated Marine-Army Development



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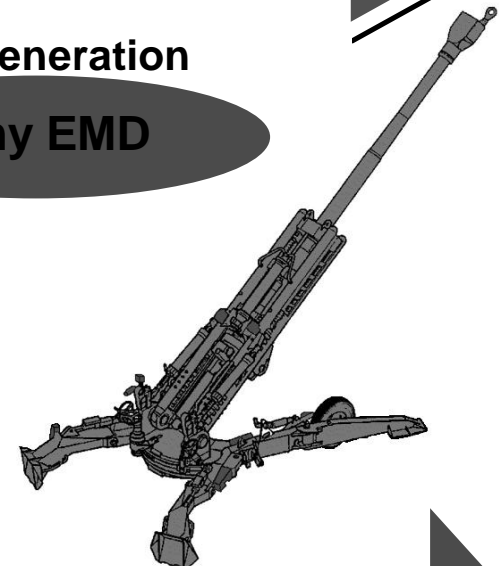
The Howitzer Program



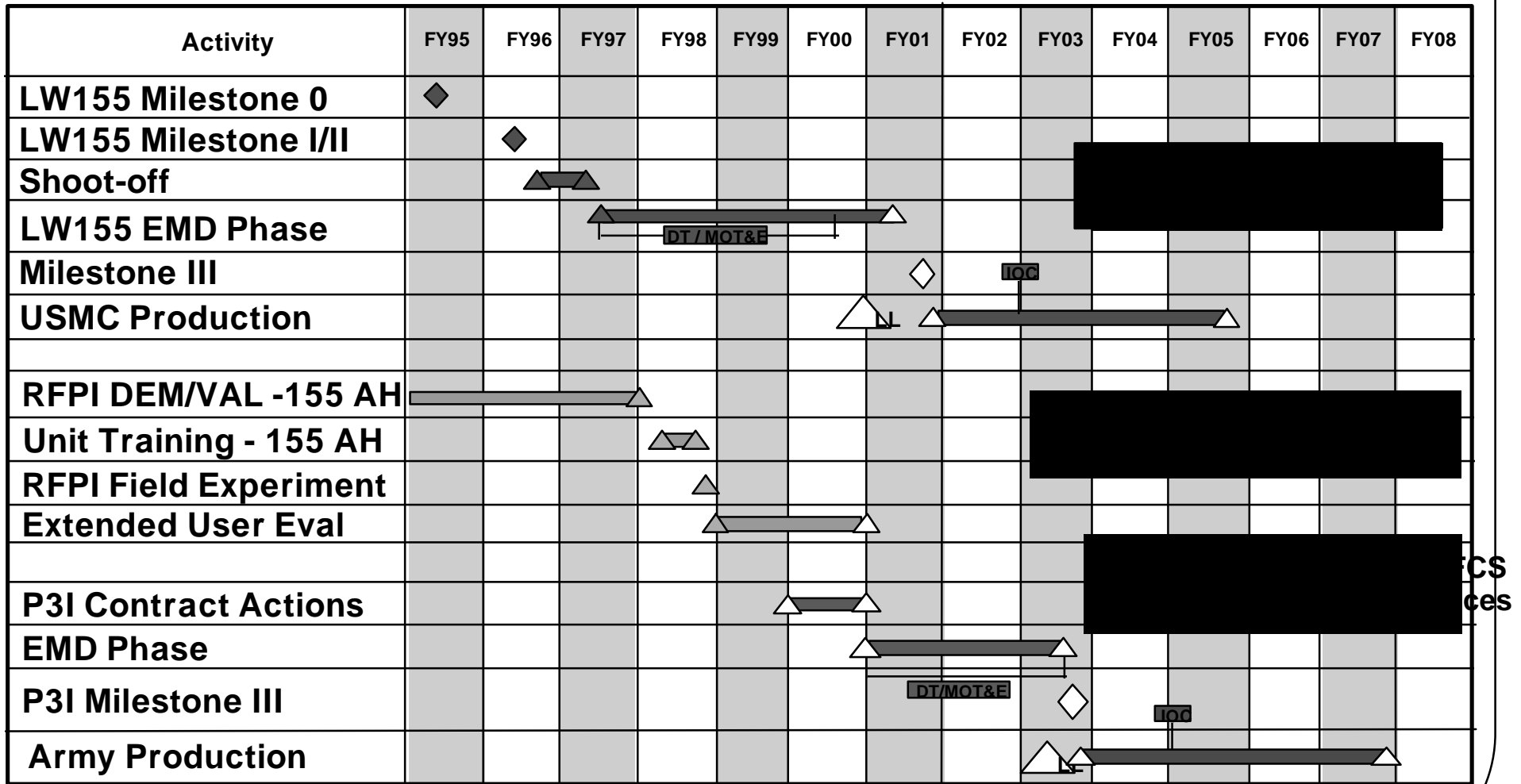
The P3I DFCS Program



The Future of Towed Cannon Artillery



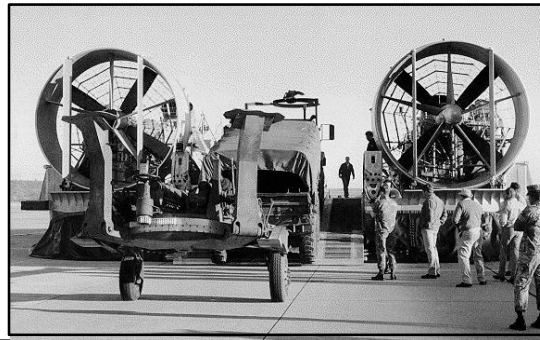
Fully Coordinated Marine-Army Development



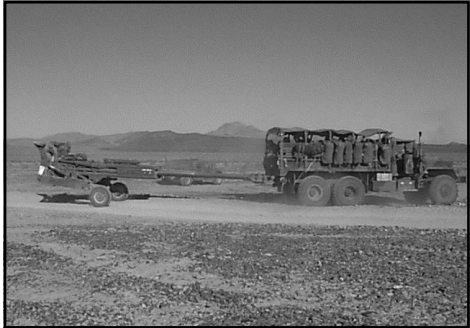
The Future of Towed Cannon Artillery

Engineering and Manufacturing Development

- Applied Shoot-Off Lessons Learned
- Comprehensive Evaluation of 8 EMD Prototypes
- Arctic, Jungle and Desert



- Joint Marine & Army Live Fire Tests
- Detailed Logistics & Fielding Plans
- Production Preparation & Decision



Rapid Forces Projection Initiative



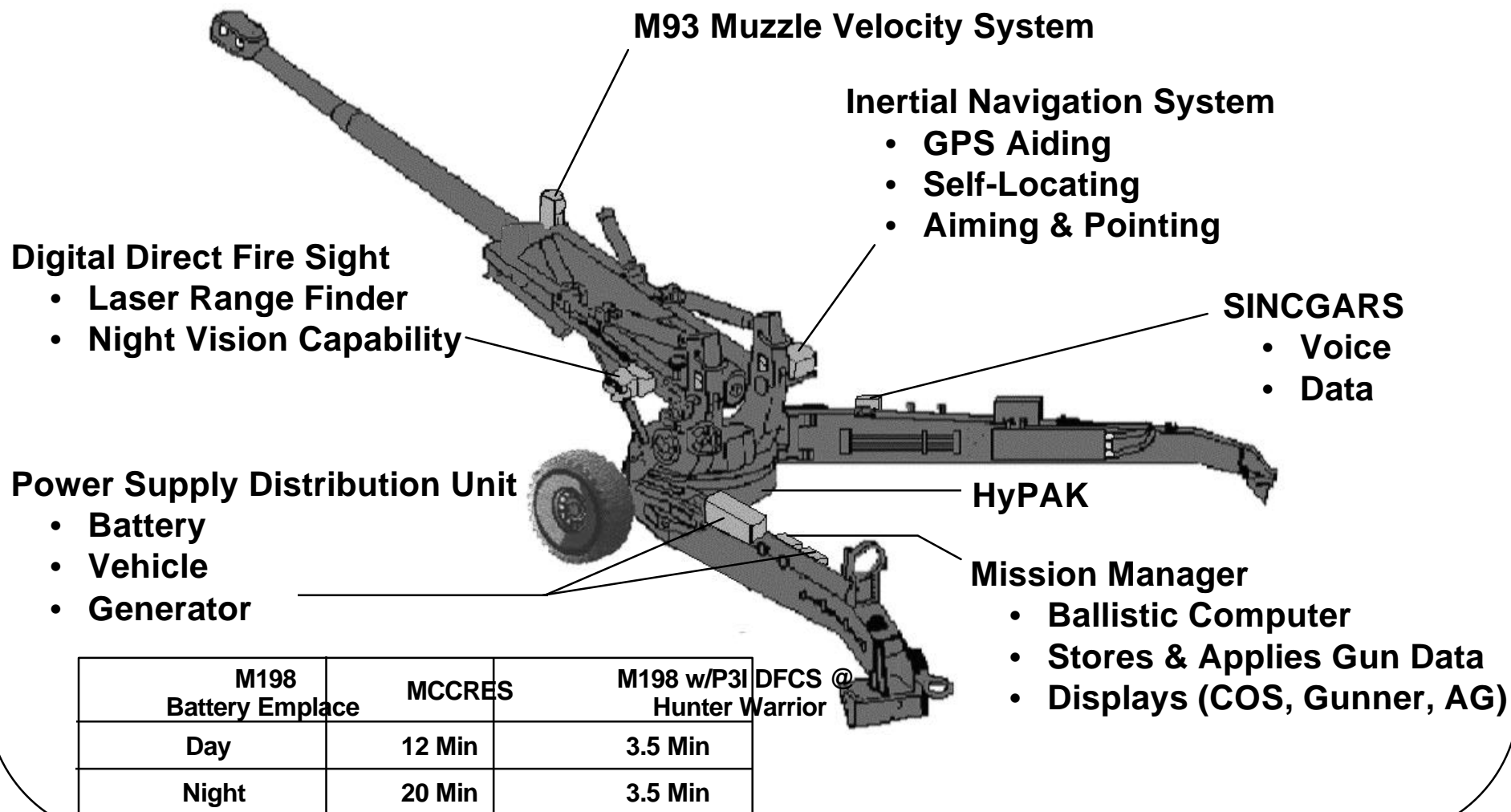
**March 98 - Soldiers of the XVIII Airborne Corps Artillery
Training on RFPI Automated Howitzer**

**21st Century Digitization
Comes to Towed Artillery**



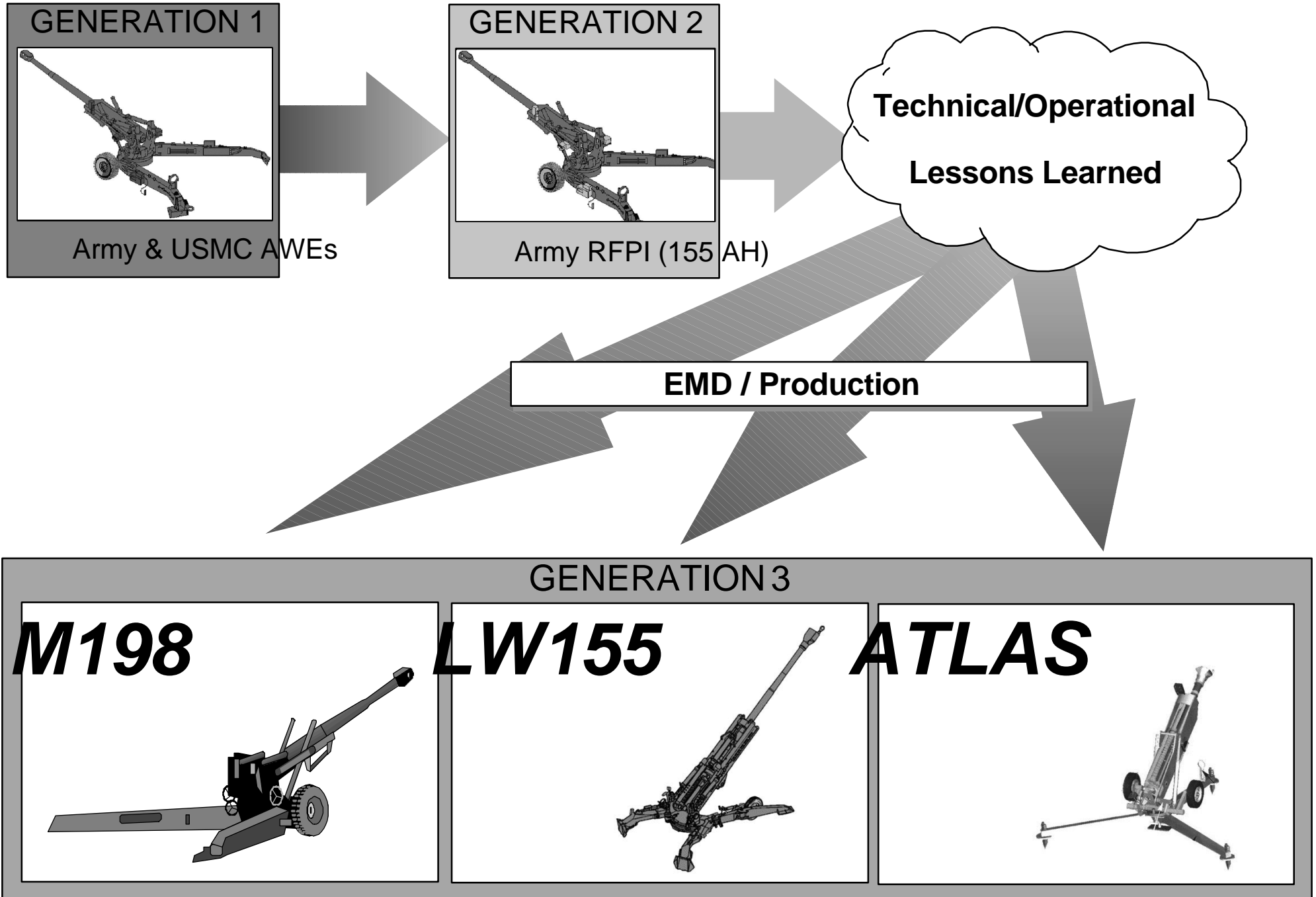
155mm Automated Howitzer

Digital Fire Control Technology Demonstrator



The Future of Towed Cannon Artillery

155mm Towed Artillery Digitization



Summary



- **Fast Moving Joint Program**
- **Valid Joint Requirements**
- **Strong Support**
- **International Involvement**
- **On Track for 2002 USMC IOC**